

AMENDMENTS TO THE CLAIMS

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1. (Currently Amended) A dual frame buffer system, comprising:
a first frame buffer;
a second frame buffer to store data used to refresh ~~the a~~ display monitor; and
a controller to simultaneously copy identified updated data from updated within the first
frame buffer to both the second frame buffer and to a the display monitor when the identified
updated data is needed to refresh the display monitor.
2. (Previously Presented) The dual frame buffer system claimed in claim 1, wherein
the controller coordinates refresh of the display monitor using data stored in the second frame
buffer and data updated within the first frame buffer.
3. (Original) The dual frame buffer system claimed in claim 1, further comprising:
a first address generator corresponding to the first frame buffer;
a second address generator corresponding to the second frame buffer; and
a timing generator for coordinating the timing between the first and second address
generators for refreshing the display monitor.
4. (Previously Presented) The dual frame buffer system claimed in claim 3, further
comprising:
a detector for detecting when an update is made to the data in the first frame buffer; and
a decoder for decoding the location of the updated data, wherein the controller to
simultaneously transmit the updated data from the first frame buffer to the second frame buffer and
the display monitor when the display monitor is refreshed.
5. (Original) The dual frame buffer system claimed in claim 4, wherein the first
frame buffer comprises a plurality of regions.
6. (Previously Presented) The dual frame buffer claimed in claim 5, wherein the
controller transmits those regions corresponding to the updated data from the first frame buffer to
the second frame buffer and the display monitor when the display is refreshed.
7. (Original) The dual frame buffer claimed in claim 1, wherein the first frame
buffer is part of a unified memory architecture.
8. (Original) The dual frame buffer claimed in claim 7, wherein the second frame
buffer stores data used to refresh the display monitor.
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9. (Currently Amended) A unified memory architecture system comprising:
a unified memory including a main memory and a primary frame buffer memory;
a secondary frame buffer memory to store data used to refresh a display monitor; and
a controller to simultaneously copy identified updated pixel data updated within from the
primary frame buffer memory to both the secondary frame buffer memory and to the a display
monitor when the identified updated pixel data is needed to refresh the display monitor.

10. (Currently Amended) The system claimed in claim 9, wherein the controller further
coordinates refresh of the display monitor using pixel data stored in the ~~second~~ secondary frame
buffer memory and pixel data updated within the ~~first~~ primary frame buffer memory.

11. (Original) The system claimed in claim 10, further comprising:
a primary address generator corresponding to the primary frame buffer memory;
a secondary address generator corresponding to the secondary frame buffer memory; and
a timing generator for coordinating the timing between the primary and secondary address
generators for refreshing the display monitor.

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12. (Previously Presented) The system claimed in claim 11, further comprising:
a detector for detecting when an update is made to the pixel data in the primary frame buffer
memory; and
a decoder for decoding the location of the updated pixel data, wherein the controller to
simultaneously transmit the updated pixel data from the primary frame buffer memory to the
secondary frame buffer memory and the display monitor when the display monitor is refreshed.

13. (Original) The system claimed in claim 12, wherein the primary frame buffer
memory is partitioned into a plurality of regions.

14. (Previously Presented) The system claimed in claim 13, wherein the controller
transmits those regions containing the updated pixel data from the primary frame buffer memory to
the secondary frame buffer memory and the display monitor when the display monitor is refreshed.

15. (Currently Amended) A method of refreshing a display, comprising:
identifying data which is ~~changed~~ updated in a first frame buffer memory;
refreshing a display monitor using data contained within a second frame memory buffer;
and
~~coordinating refreshing of the~~ simultaneously copying of the identified updated data from a
the first frame buffer memory to a both the second frame buffer memory and to a display monitor
when the identified updated data is needed to refresh the display monitor.

16. (Previously Presented) The method claimed in claim 15, further comprising:
transmitting the pixel data simultaneously from the first frame buffer memory to the second
frame buffer memory and the display monitor.

17. (Previously Presented) The method claimed in claim 15, further comprising:
detecting when an update is made to the pixel data in the first frame buffer memory; and
decoding the location of the updated pixel data; and
transmitting the updated pixel data from the first frame buffer memory to the second frame
buffer memory and the display monitor when the display monitor is refreshed.

18. (Original) The method claimed in claim 15, further comprising:
partitioning the first frame buffer memory into a plurality of regions.

19. (Previously Presented) The method claimed in claim 18, further comprising:
transmitting those regions containing the updated pixel data from the first frame buffer
memory to the second frame buffer memory when the display is refreshed.

20. (Original) The method claimed in claim 15, wherein the first frame buffer
memory is part of a uniform memory architecture memory.

21. (Currently Amended) A computer product for refreshing a display, comprising:
first computer readable program code embodied in a computer usable medium to cause a
computer to identify data which is ~~changed~~ updated in a first frame buffer memory;
second computer readable program code embodied in a computer usable medium to cause a
computer to refresh a display monitor using data contained within a second frame memory buffer;
and

third computer readable program code embodied in a computer usable medium to cause a
computer to ~~coordinate refresh of the display monitor and~~ simultaneously copy of ~~identified~~
updated data from ~~a the~~ first frame buffer memory to ~~a both the~~ second frame buffer memory and
to the display monitor when the updated data is ~~changed in the first frame buffer memory and~~
~~needed for refreshing to refresh~~ the display monitor.

22. (Previously Presented) The computer product claimed in claim 21, further
comprising:

third computer readable program code embodied in a computer usable medium to cause a
computer to transmit the pixel data simultaneously from the first frame buffer memory to the
second frame buffer memory and the display monitor.

23. (Previously Presented) The computer product claimed in claim 21, further comprising:

third computer readable program code embodied in a computer medium to cause a computer to detect when an update is made to the pixel data in the first frame buffer memory; and

fourth computer readable program code in a computer usable medium to cause a computer to decode the location of the updated pixel data; and

fifth computer readable program code embodied in a computer usable medium to cause a computer to transmit the updated pixel data from the first frame buffer memory to the second frame buffer memory and the display monitor when the display monitor is refreshed.

24. (Original) The computer program claimed in claim 21, further comprising:
third computer readable program code embodied in a computer usable medium to cause a computer to partition the first frame buffer memory into a plurality of regions.

25. (Previously Presented) The computer produced claimed in claim 21, further comprising:

third computer readable program code embodied in a computer usable medium to cause a computer to transmit those regions containing the updated pixel data from the first frame buffer memory to the second frame buffer memory and the display monitor when the display monitor is refreshed.

26. (Currently Amended) A dual frame buffer system, comprising:
a first frame buffer;
a second frame buffer to store data used to refresh a display monitor; and
a controller to coordinate refresh of the display monitor using data stored in the second frame buffer and data updated within the first frame buffer, wherein the controller to simultaneously copy updated data from the first frame buffer memory to both the second frame buffer memory and to a display monitor when the updated data is needed to refresh the display monitor.

27. (Previously Presented) The dual frame buffer system claimed in claim 26, further comprising:

a first address generator corresponding to the first frame buffer;
a second address generator corresponding to the second frame buffer; and
a timing generator to coordinate the timing between the first and second address generators for refreshing the display monitor.

28. (Previously Presented) The dual frame buffer system claimed in claim 27, wherein the first frame buffer comprises a plurality of regions.

29. (Previously Presented) The dual frame buffer system claimed in claim 27, further comprising:

a detector for detecting when an update is made to the data in the first frame buffer; and
a decoder for decoding the location of the updated data, wherein the controller to simultaneously transmit the updated data from the first frame buffer to the second frame buffer and the display monitor when the display monitor is refreshed.

30. (Previously Presented) The dual frame buffer claimed in claim 29, wherein the controller transmits those regions corresponding to the updated data from the first frame buffer to the second frame buffer and the display monitor when the display monitor is refreshed.
